WIRELESS ACCESS COALITION



October 7, 2000

RM-8658

Secretary Caton
Office of the Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Reopening of Petition Concerning Hearing Aid Access

Dear Secretary Caton,

The Wireless Access Coalition (WAC) is writing to formally request that the Federal Communications Commission (FCC) re-open the **Petition for Rulemaking in the Matter of Section 68.4 (a) of the Commission's Rules, Hearing Aid-Compatible Telephones,** filed on June 5, 1995 on behalf of the HEAR-IT NOW Coalition. This petition requested that the exemption for PCS devices from the Hearing Aid Compatibility Act of 1988 be revoked. WAC would like to be named as additional petitioners. AG Bell and SHHH, members of WAC, were two of the original petitioners.

The WAC is made up of representatives of a wide range of consumers from across the country as you can see by the list of founders on our letterhead. We have come together out of frustration and concern that the increasingly digital world is leaving hearing aid and cochlear implant users farther and farther behind

In 1995, the HEAR-IT NOW Coalition filed this petition because broadband PCS devices were not hearing aid compatible. Consumer and hearing health professional groups wanted the FCC to stop deployment of the technology until the significant problem of interference from PCS devices was resolved. Then-FCC Chairman,

Reed Hundt, stated categorically that delaying deployment was not an option.

Instead he directed the key wireless industry players to work together with consumers, hearing health professionals and hearing aid manufacturers to find a solution. As a result, the "Hearing Aid Compatibility and Accessibility To Digital Wireless Telecommunications Summit" was convened in Washington, January 1996. A steering committee and three working groups were put together at the Summit and continued to meet regularly to work on short and long term solutions and the more complex issue of inductive coupling of hearing aids to PCS devices. The steering committee sent regular reports to the Chairman on the working groups' progress.

One outcome of the Summit was the convening of the standards committee, ANSI C63.9, to develop a standard to measure hearing aid immunity and interference of digital wireless telephones. The standard is still awaiting approval.

Further, The Cellular Telecommunications Industry Association (CTIA) funded a study, "Evaluation of the Interaction Between Wireless Phones and Hearing Aids" carried out at the Center for the Study of Wireless Electromagnetic Compatibility at the University of Oklahoma. They released two reports between September 1996 and March 1998 showing that all three digital phone technologies tested caused interference with many hearing aids.

While many good things came out of the Summit and subsequent meetings, hearing aid compatibility with digital wireless telephones is still an ongoing problem. As more and more products are released at an incredible pace, hearing aid wearers are lagging further and farther behind. Equipment manufacturers and service providers have made some progress. Examples of actions being developed and implemented as required under Section 255 of the Telecommunications Act of 1996 include:

- software barriers were addressed,
- three companies have manufactured neck loops as an add-on item for those who use tele-coils in their aids,

- volume controls are built-in, though the volume control boost is not strong enough for many hearing aid users,
- some companies have been developing antenna modifications and shielding mechanisms to cut down on the interference, and
- other solutions have been deployed that are helpful for those with a variety of other types of disabilities.

The WAC recognizes and applauds those companies that are taking the lead in this effort. However, not enough progress has been made on the central problem: hearing aid interference from digital wireless telephones. Though section 255 regulations have been in place for one year, the Summit was held over four years ago and digital wireless phones are still not accessible to most hearing aid users.

While analog services are an alternative for some hearing aid users, we note that as digital PCS has matured, the features offered are far superior to those of analog cellular phones. Additionally, PCS providers often set very competitive pricing structures that are considerably less expensive than analog providers. Further, analog communication networks are being maintained at minimal levels of service, while still being more expensive.

Two of the most worrisome aspects to all of this are detailed in the FCC's own report adopted August 3, 2000. The "Fifth Report" or the **Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services** speaks to the continued rise of digital services and the growing trend toward abandoning land lines for digital services. "The combined effect...[the doubling of digital subscribers and the first report of a decline in analog subscribers] was that at the end of 1999, digital subscribers made up 51% of the industry total. (PP13,14, "Fifth Report," before the FCC, adopted August 3 and released August 18, 2000)

The same report also details the "Wireless/Wireline Competition" where service providers are marketing digital PCS devices to replace traditional wireline services at a very competitive price. "For example,...in early 1999 Chase Telecommunications Holdings Inc...began offering a mobile telephone service in Chattanooga,

Tennessee designed to compete with wireline local telephone service." (p14) This is the nightmare that hearing aid and cochlear implant users face unless intervention occurs quickly.

The WAC was formed in response to discontent among its constituencies-the 6 million hearing aid and 20,000 cochlear implant users in the U.S. As digital technology continues to advance, displacing other technologies, hearing aid and cochlear implant users face the prospect of finding ourselves marginalized from mainstream communication and the consequence of regressing to more dependent, less productive lives. We strongly urge the FCC to take action on this issue as quickly as possible.

Yours for a barrier free global communication system,

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BEFORE THE
# FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, DC 20554

In the Matter of

Section 68.4(a) of the Commission's Rules
In the Matter of )
)
Section 68.4 of the Commission's Rules )
Hearing Aid-Compatible Telephones )

## PETITION FOR RULE MAKING

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Filed: June 5, 1995

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## PETITION FOR RULE MAKING

1. Helping Equalize Access Rights in Telecommunications Now, or HEAR-IT NOW,[1] through counsel, respectfully requests that the Commission issue a Petition for Rule Making to amend Section 68.4(a) of the Commission's Rules, 47 C.F.R. § 68.4(a), to specify that broadband PCS devices capable of voice transmission or reception must be hearing aid-compatible. Unless the Commission acts, the nation's four million hard of hearing individuals who rely on hearing aids may be unable to use PCS devices. Swift action by the Commission, however, will ensure universal access to advanced communications for all--including individuals who are hard of hearing.

Background

2. When Congress passed the Hearing Aid Compatibility Act of 1988 ("the Act"), it required the Commission to establish regulations to ensure reasonable access to telephone service by

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[1] HEAR-IT NOW is a coalition of groups formed to promote equal access by the Nation's four million hearing aid wearers to advanced communications services. Members of HEAR-IT NOW include Self-Help for Hard of Hearing People, Inc., the Alexander Graham Bell Association for the Deaf and the Wireless Communications Council.

individuals who are hard of hearing.[2] In doing so, Congress clearly stated that "to the fullest extent made possible by technology and medical science, hard of hearing persons should have equal access to the national telecommunications network[.]"[3] Virtually all telephones were required to be hearing aid-compatible under the Act, including new telephones and telephones associated with a new technology or service, although Congress directed the Commission to specifically exempt several categories of telephones, including those used with public mobile services and private radio services.[4] At the same time, Congress directed the Commission to review periodically these exemptions.[5] In response to this directive, the Commission announced that it would review these exemptions at least every five years.[6] The exemptions must be revoked if the Commission determines that (i) revocation or limitation is in the public interest; (ii) continuation of the exemption without such revocation or limitation would have an

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[2] 47 U.S.C. § 610(a). The Commission adopted the necessary regulations in 47 C.F.R. §§ 68.4, 68.112, 68.224, 68.316, and 68.414.

[3] Pub.L. 100-394, Section 2 (1988)

[4] 47 U.S.C. § 610(b)(2)(A).

[5] 47 U.S.C. § 610(b)(2)(C).

[6] See Access to Telecommunications Equipment and Services by the Hearing Impaired and Other Disabled Persons, 4 FCC Rcd 4596, 4600 (1989). While these exemptions have not been reviewed by the Commission since their initial promulgation in the Act, an Advisory Committee has been formed to negotiate regulations to specify the requirements for hearing aid-compatible telephones in workplaces, hospitals, certain other health care facilities, prisons, hotels and motels. See Public Notice, 9 FCC Rcd 6706 (1994).

adverse effect on hard of hearing individuals; (iii) compliance with the requirements for hearing aid-compatibility is technologically feasible for the telephones to which the exemption applies; and (iv) compliance with the requirements for hearing aid-compatibility would not increase costs to such an extent that the telephones to which the exemption applies could not be successfully marketed.[7]

3. The focus on information technology in the 1980's has given rise to a focus on personal communications technology in the 1990's. New PCS devices promise to offer a range of equipment that is capable of voice, data, and video transmission and reception. This will provide, in effect, the capability of combining a personal organizer, scheduler, spreadsheet and word processor, a high speed data terminal with almost instant access to any database in the world, a facsimile machine and a standard telephone into a single compact and portable unit. These new personal portable offices will increase mobility in society, and will extend the freedom of choice and the capabilities of the individual citizen. The advances that would be made in PCS technology, along with its potential concomitant impact on society, were unknown in 1988 when the Act was passed, but were clearly anticipated, as indicated by the inclusion of "new technology or service" within the scope of the hearing aid compatibility requirements.[8]

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[7] 47 U.S.C. § 610(b)(2)(C); 47 C.F.R. §68.4(a)(4).

[8] 47 U.S.C. § 610(b)(3).

4. The FCC is currently engaged in a process of auctioning licenses for a portion of the available PCS spectrum. Successful bidders in this auction are selecting basic operating systems, as well as the types of equipment to be used with those systems. One available PCS operating system is the Global System for Mobile Communications (GSM), which has been proven to be incompatible with most hearing aids. As the attached studies demonstrate, operation of a GSM device by a hearing aid wearer, in virtually all instances, created significant interference to the hearing aid, causing discomfort to the wearer and temporarily disabling the hearing aid. Indeed, in some cases, hearing aid wearers standing within several meters of a person using a GSM telephone experienced interference.[9] A videotape demonstrating the interference to a hearing aid caused by a mobile telephone utilizing the GSM digital standard is also attached.[10]

5. The European response to GSM-created interference has not been to require the telephone manufacturers to make the telephones hearing aid compatible, but rather to require hearing aid and other electronic device manufacturers to develop shielding mechanisms to

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[9] See Exhibits 1 through 5, which consist of the texts of studies regarding GSM interference conducted by the National Telecom Agency of Denmark; the National Audiology Centre, Auckland, New Zealand; the National Acoustic Laboratories of Sydney, Australia; and British Telecom Laboratories. The level of interference experienced by the hearing aid wearer is dependent on several factors, including the type of hearing aid, the power level of the GSM device, and the proximity of the GSM device to the ear.

[10] See Exhibit 6, which is an excerpt from a BBC Television program entitled "Tomorrow's World," broadcast on October 29, 1993.

protect those devices from harmful interference. Hearing aid shielding devices present a host of problems for manufacturers, however, in part because of the small size of hearing aids. Furthermore, hearing aids currently used by four million Americans could not be retrofitted with shielding devices. Consequently, hearing aid wearers would have to purchase new, shielded hearing aids, or would have to forego use of this new communications technology.

Discussion

6. In light of previous Congressional directives, as well as the European experience with GSM technology and its effects on hearing aids, it is clear that the Commission must act to ensure hearing aid compatibility for this new generation of telecommunications technology. Indeed, the possibility that companies may introduce GSM-based technologies for PCS devices--technologies that have been proven to create severe interference to hearing aids--compels immediate action.

7. A limited revocation of the Act's exemptions for private radio services or public mobile services, insofar as PCS devices fall within those categories, is warranted under the four guidelines set forth in the Act for the elimination of such exemptions.[11] First, revocation of the exemption would serve the public interest. Within the next few years, hundreds of thousands, if not millions, of PCS devices will be in operation. Unless the

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[11] See supra at pp. 2-3. See also 47 U.S.C. § 610 (b)(2)(C); 47 C.F.R. § 68.4(a)(4).

devices are hearing aid-compatible, however, some four million Americans will be excluded from this next phase of the communications revolution.[12]

8. Second, continuation of the exemption for PCS devices capable of transmitting or receiving voice communications presents a serious economic threat to individuals who are hard of hearing. As explained above, GSM devices create significant interference to hearing aids, which, in turn, creates significant discomfort to hearing aid users. As a result, a hearing aid wearer would be precluded from using a GSM device in conjunction with an existing hearing aid, and could even encounter interference caused by a nearby GSM user. Even if shielding is developed for certain new models, the small size of other hearing aids may preclude the inclusion of shielding mechanisms.

9. Furthermore, mandating hearing aid compatibility for broadband PCS devices before those devices are introduced in the United States will serve not only to protect hearing aid wearers but the wireless industry as well. Future retrofitting of wireless communications to permit hearing aid compatibility would be costly, time-consuming and disruptive to the wireless industry. Indeed, the costs associated with retrofitting led the Commission to stay in part its rules regarding hearing aid-compatible telephones in

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[12]Even if effectively shielded hearing aids could be developed, hearing aid wearers would be forced to absorb the costs of the new devices as few insurance plans pay for hearing aids. Current costs for hearing aids vary from several hundred to several thousand dollars, depending on the manufacturer, the vendor, the style of the hearing aid and the functions associated with the aid.

workplaces, hospitals, other health care facilities, prisons, hotels and motels. As a result, some seven years after the Hearing Aid Compatibility Act was adopted, people who wear hearing aids are still not able to use all telephones in public places, and businesses and organizations still face costs associated with retrofitting their existing telephones. By mandating compatibility before broadband PCS devices are introduced, however, the Commission will protect hearing aid wearers as well as the wireless industry from the high cost of retrofitting, while ensuring that individuals who are hard of hearing can use the new technology from the outset.

10. Third, compliance with existing hearing aid compatibility regulations is technologically feasible. While the European emphasis has been placed on designing GSM-compatible hearing aids, it is also possible to design GSM devices to reduce substantially the effects of interference. For instance, a reduction in maximum operating power, or a relocation of the transmitter portion of the device away from the hearing aid, may significantly alleviate the problem. To date, however, it appears that these options have not been explored.

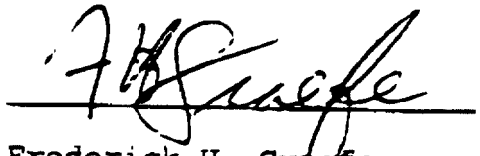
11. Finally, compliance with the hearing aid compatibility regulations would not increase costs to such an extent that the devices would not be marketable. Since no PCS devices are currently in operation in the United States, no existing users will be affected. Furthermore, there is no GSM-dependent infrastructure in place that would be subject to costs related to compliance.

Indeed, compliance would likely save hearing aid manufacturers millions of dollars in costs related to the development of improved devices, and would save hearing aid wearers tens of millions of dollars in costs associated with replacing their hearing aids to avoid interference.

Conclusion

12. By requiring broadband PCS devices to comply with current regulations regarding hearing aid compatibility, the Commission will help to protect four million hard of hearing individuals who wear hearing aids from severe interference, and will ensure that those individuals are capable of fully enjoying the benefits of PCS devices. Accordingly, HEAR-IT NOW respectfully requests that the Commission initiate a rulemaking proceeding to amend Section 68.4(a) of the Commission's Rules to specify that PCS devices capable of voice transmission and reception must be hearing aid-compatible.

Respectfully submitted,



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June 5, 1995

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